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10/567,584	10/30/2006	Masato Yamamichi	2006_0112A	2513

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EXAMINER	
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,584	YAMAMICHI ET AL.	
	Examiner	Art Unit	
	MICHAEL R. VAUGHAN	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☒ Claim(s) *8,9 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 October 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/8/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The instant application having Application No. 10/567,584 filed on 10/30/2006 is presented for examination by the examiner.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been received.

Oath/Declaration

The revised Oath concerning the heirs has been accepted and now the Oath / Declaration is accepted.

Specification

The disclosure is objected to because of the following informalities: on page 2, line "Document 1" is found to refer to lines 9-10 of page 3. Lines 9-10 on page 3 should be deleted and "Document 1" replace with the appropriate reference.

Appropriate correction is required.

Claim Objections

Claims 8, 9, and 12 are objected to because of the following informalities:

As per claim 8, there is the term "lower-unity". In the context of the claim, it is unclear of any relationship between of higher or lower. Examiner assumes this is

probably a literal translation and is interpreting it to mean a part of the sub-unit. Examiner suggests Applicant make any changes especially in the claims where language such as this makes the claim hard to understand.

Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 7 (the parent) includes the limitation of a use period information that effectively controls whether or not access to the content is granted. Claim 9, (the child) has the limitation of a condition for using the content, again which controls whether or not access to the content is granted. Claim 9's condition is broader than claim 7's use period information. A use period information falls within the scope of a condition for use. In fact, use period information is one type of condition for access. There certainly are other types of access control other than timing. Therefore claim 9 is broader than claim 7.

As per claim 12, there is this same improper dependent form as disclosed in the claim 9 objection. Claim 12's use condition is broader than the use period of claim 11. Use period is one type of a use condition.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 20 and 21 are rejected under 35 U.S.C. 101 as directed to non-statutory subject matter of software, per se. The claim lacks the necessary physical articles or objects to constitute a machine or manufacture within the meaning of 35 U.S.C. 101. It is clearly not a series of steps or acts to be a process nor is it a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. It is at best, function descriptive material per se.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are non-statutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Merely claiming non-functional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").See MPEP 2106.01 [R-6].

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 and 16-21 are rejected under 35 U.S.C. 102(e) as being anticipated by USP Patent Application Publication 2003/0152222 to Nakano et al., hereinafter Nakano.

As per claim 1, Nakano teaches a content distribution apparatus operable to distribute an encrypted content (0005), which is generated by encrypting a content using a content key uniquely assigned to the content (0049), and an encrypted content key which is generated by encrypting the content key using a master key [media key] that is commonly assigned to a plurality of contents including the content (0118);
a content-use recording medium in which master information [media number area] (0046), which is generated from a source material that includes at least the master key, is recorded (01180; and
a reproduction apparatus operable to acquire the encrypted content and the encrypted content key from the content distribution apparatus (0149), generate a master key [media key] from the master information [media number area] recorded in the content-use recording medium, generate a content key by decrypting the encrypted content key using the generated master key, generate a content by decrypting the encrypted

content using the generated content key, and reproduce the generated content (0071 and 0120).

As per claim 2, Nakano teaches the master information is an encrypted master key that is generated by encrypting the master key [media key] using a device key uniquely assigned to the reproduction apparatus, and the reproduction apparatus generates a master key by decrypting the encrypted master key using a device key uniquely assigned to the reproduction apparatus (0119).

As per claims 3, 19, 20, and 21, Nakano teaches reproduction method, apparatus (playback device), and computer program with media that acquires encrypted contents from a content distribution apparatus and reproduces contents that are generated by decrypting the acquired encrypted contents (0144), comprising:
a content information acquiring unit operable to acquire an encrypted content, which is generated by encrypting a content using a content key uniquely assigned to the content, and an encrypted content key which is generated by encrypting the content key using a master key [media key] that is commonly assigned to a plurality of contents including the content, from the content distribution apparatus (0147);
a content key generating unit operable to generate a master key from master information recorded in a content-use recording medium, the master information being generated from a source material that includes at least the master key commonly assigned to the plurality of contents, and generate a content key by decrypting the encrypted content key using the generated master key (0147- 0148);
a content generating unit operable to generate a content by decrypting the encrypted

content using the generated content key (0007 and 0101); and

a reproducing unit operable to reproduce the generated content (0102).

As per claim 4, Nakano teaches the master information recorded in the content-use recording medium is an encrypted master key that is generated by encrypting the master key using a device key uniquely assigned to the reproduction apparatus, and the content key generating unit generates a master key by decrypting the encrypted master key using a device key uniquely assigned to the reproduction apparatus (0119).

As per claim 5, Nakano teaches the content-use recording medium further stores therein another encrypted master key that is generated by encrypting another master key [unique media key] using the device key uniquely assigned to the reproduction apparatus [kdi] (0131), and

the content key generating unit further generates the other master key [unique media keys] by decrypting the other encrypted master key using the device key, and generates a content key by decrypting the encrypted content key using the generated other master key (0140).

As per claim 6, Nakano teaches the master information is an encrypted master key set [group of unique media keys] that is generated by encrypting, using the device key [kdi] uniquely assigned to the reproduction apparatus, a master key set composed of the master key and another master key (0131), and

the content key generating unit generates the master key and the other master key by decrypting the encrypted master key set using the device key [unique media keys], and

generates a content key by decrypting the encrypted content key using the generated master key (0131).

As per claim 16, Nakano teaches a content distribution apparatus connected to a reproduction apparatus via a network [broadcast via satellite] (0059), comprising:
a content information storage unit storing therein an encrypted content (0118), which is generated by encrypting a content using a content key uniquely assigned to the content, and an encrypted content key which is generated by encrypting the content key using a master key [media key] that is commonly assigned to a plurality of contents including the content (0134); and
a distributing unit operable to distribute the encrypted content and the encrypted content key stored in the content information storage unit to the reproduction apparatus via the network (0119).

As per claim 17, Nakano teaches a master key storage unit storing therein a plurality of master keys [inherent that is the content is encrypted with master keys, the original distributor must in fact possess those keys];
a state changing unit operable to, if any of the plurality of master keys is not permitted to be used, set the not-permitted master key to an unusable state [media key information has some keys that have been revoke] (0136); and
a content key encrypting unit operable to generate one or more encrypted content keys

respectively using one or more master keys that are permitted to be used, among the plurality of master keys (0136).

As per claim 18, Nakano teaches a master key generating unit operable to generate a master key [media key] that is commonly assigned to a plurality of contents, the master key being used for encrypting a content key (0118);
a master information generating unit operable to generate master information that indicates the master key (0129); and
a writing unit operable to write the generated master information into the content-use recording medium (0118).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano in view of USP 6,240,401 to Oren et al., hereinafter Oren.

As per claim 7, Nakano teaches the recording medium contains use information [license number in the media number area] and a manipulating the media key so that the reproduction device can permit or deny (judge) whether or not the encrypted content can be reproduced (0140). Nakano also teaches an acquisition information storage

sub-unit operable to store therein the received acquisition information in association with the encrypted content and the encrypted content key (0118). Nakano is silent in disclosing including use period information that indicates if the content is acquired for rent or purchase and judging based on those indicia whether or not to reproduce the content. Oren teaches including use period information that indicates if the content is acquired for rent or purchase and judging based on those indicia whether or not to reproduce the content (col. 6, lines 10-25). An obvious step of improvement would be to include this feature in the license information of Nakano system. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaches of Nakano by including the use period information of Oren because it would allow the system to not only protect authorized copying but allow collection money base on the type of use. Nakano provides rationale for this where he teaches that reproduction only occurs if license information matches reference information (0222). Also pay-per-view is well known in the art.

As per claim 8, Nakano is silent in disclosing if the acquisition information judging sub-unit judges that the acquisition information indicates rental, calculate a period between acquisition of the encrypted content and the encrypted content key and reception of the reproduction instruction, and judge whether the calculated period is within the use period indicated by the use period information. Oren teaches if the acquisition information judging sub-unit judges that the acquisition information indicates rental, calculate a period between acquisition of the encrypted content and the encrypted content key and reception of the reproduction instruction, and

judge whether the calculated period is within the use period indicated by the use period information (col. 5, lines 55-61). Examiner incorporates the rationale for combining Nakano and Oren as applied to claim 7 above. It is obvious that if the media is rented to set some kind of time limit on the rental period, else, they user would get an unlimited playback having only paid for renting not owning.

As per claim 9, Nakano teaches the content-use recording medium further stores therein usable content information [media number and license information] that indicates a condition for using the content (0080), and
the content information acquiring unit judges whether the condition for using the content is satisfied, acquires the encrypted content and the encrypted content key from the content distribution apparatus if having judged that the condition for using the content is satisfied, and does not acquire the encrypted content and the encrypted content key from the content distribution apparatus if having judged that the condition is not satisfied (0222).

As per claim 10, the content distribution apparatus distributes the encrypted content and the encrypted content key to the reproduction apparatus regardless of whether the content distribution apparatus receives a content distribution request from the reproduction apparatus or not [broadcasted] (0059), and
the content information acquiring unit [recording device] receives the encrypted content and the encrypted content key from the content distribution apparatus, and judges whether the received encrypted content and encrypted content key satisfy the condition indicated by the usable content information, holds the received encrypted content and

encrypted content key if having judged that the received encrypted content and encrypted content key satisfy the condition, and discards [aborts] the received encrypted content and encrypted content key if having judged that the received encrypted content and encrypted content key do not satisfy the condition (0140-0141).

As per claim 11, Nakano teaches master information [license information] (0052) which is generated from a source material that includes at least a master key [media key] that is commonly assigned to a plurality of contents including the content, the master key being used for encrypting a content key (0118). Nakano is silent in explicitly teaching use period information which indicates a use period of content and the master information being associated with the use period. Oren teaches recording medium having use period information which indicates a use period of content and the master information being associated with the use period (col. 6, lines 10-25 and col. 5, lines 55-61). Examiner incorporates the rationale for combining Nakano and Oren as applied to claim 7 above.

As per claim 12, Nakano teaches storing therein usable content information that indicates a condition for using the content, the usable content information being associated with the master information in the content-use recording medium [media keys of 0 indicated the content cannot be used] (0132).

As per claim 13, Nakano teaches the master information is an encrypted master key [media key] that is generated by encrypting the master key [media key] using a device key uniquely assigned to a reproduction apparatus for reproducing the content (0132-0133).

As per claim 14, Nakano teaches another encrypted master key that is generated by encrypting another master key [unique media key assigned to each group] using the device key uniquely assigned to the reproduction apparatus, the other encrypted master key being associated with another piece of use period information (0131).

As per claim 15, Nakano teaches the master information is an encrypted master key set [unique media key assigned to each group] that is generated by encrypting, using the device key uniquely assigned to the reproduction apparatus, a master key set composed of the master key and another master key (0131).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Technical Disclosure by IBM, entitled "Content Protection System with Media Key Block for Video-on-Demand" teaches encrypting content with a content key, encrypting the content key with a master key, and encrypting the master key with a device key.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. VAUGHAN whose telephone number is

(571)270-7316. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R. V./

Examiner, Art Unit 2131

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2131